Amendm nts to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-24: (Canceled)

25. (new) A process for the detection, cloning and/or sequencing of polypeptides or parts thereof, which drive the subcellular localization of a protein containing such polypeptide or part thereof, comprising

(a) constructing an expression library of random nucleic acids ligated to a reporter gene and inserted in a vector molecule,

(b) transfecting a plurality of host cells with the library,

(c) screening for the subcellular localization of the expression product of the nucleic acid in the host cells via detection of a signal produced by the reporter gene,

(d) cloning such cells where the reporter gene signal is detected in a certain subcellular localization, and

(e) cloning and optionally sequencing the nucleic acid insert which encodes the polypeptide or part thereof,

wherein said random nucleic acids are genomic DNA, cDNA or fragments thereof.

26. (new) The process according to claim 25, wherein said library is a eukaryotic library.

27. (new) The process according to claim 26, wherein said eukaryotic library is a yeast library.

28. (new) The process according to claim 25, wherein a homologous system of library and cells for the transfection is used.

29. (new) The process according to claim 25, wherein a heterologous system of library and cells for the transfection is used.

30. (new) The method according to claim 29, wherein a Drosophila library is used to transfect mammalian or yeast cells.

31. (new) The method according to claim 25, wherein said reporter gene results in a visually detectable signal upon expression.

32. (new) The method according to claim 31, wherein said reporter gene is a nucleic acid coding for GFP, BFP, luciferase or YFP.

33.(new) The method according to claim 25, wherein said vector contains an inducible promoter which drives the expression of random nucleic acid and reporter genes.

34. (new) A process for the identification of a protein that is localized in a given subcellular localization, wherein a nucleic acid coding for a polypeptide or part thereof driving the localization in said given subcellular localization is cloned according to claim 25 and the nucleic acid is used to detect DNA sequences coding for a protein containing such polypeptide or part thereof.

35. (new) A process for the production of a protein that is localized in a given subcellular localization, wherein a nucleic acid coding for a polypeptide or part thereof driving the localization in said given subcellular localization is cloned according to claim 25 and the nucleic acid is expressed in an expression system for the production of the protein.

36. (new) A process for directing the subcellular localization of a nucleic acid expression product, wherein a polypeptide driving the localization of a protein containing such polypeptide or part thereof is detected, its nucleic acid sequence is obtained by a process according to claim 25, the nucleic acid coding for the polypeptide or part thereof is fused to a nucleic acid coding for a protein to be expressed, and the fusion product is expressed.

37. (new) The process according to claim 36, wherein a nucleic acid coding for the polypeptide or part thereof and a reporter gene is fused to the nucleic acid coding for a protein to be expressed.

38. (new). The process according to claim 36, further comprising a reporter gene which encodes a visually detectable expression product.

39. (new) The process according to claim 36, wherein the fusion product contains a proteolytic cleavage site between the protein to be expressed and the polypeptide or part thereof and/or reporter gene product.

40. (new) A vector for the expression of a desired protein wherein the vector contains a specific site into which a DNA encoding said desired protein is inserted, wherein the vector further comprises a DNA sequence encoding a polypeptide or a part thereof which drives the subcellular localization of a protein containing such polypeptide or part thereof, and sequences encoding proteolytic cleavage sites between one or more of the constituents of the fusion protein wherein said DNA sequence is positioned in such a way that a fusion protein of said desired protein and polypeptide or part thereof is expressed.

41. (new) The vector according to claim 40, wherein the vector is a eukaryotic vector.

42. (new) The vector according to claim 40, wherein the vector further comprises a reporter gene positioned in such a way that upon translation a fusion protein of desired protein and polypeptide or part thereof and reporter gene product is expressed.

43 (new) The vector according to claim 42, wherein the reporter gene product is visually detectable.

44. (new) A cell line transfected with a vector according to claim 40, encoding a fusion protein of at least a polypeptide or part thereof driving the localization to a given subcellular localization and a desired protein.

45. (new) A kit for the expression of a desired protein in a desired localization of a host cell, comprising a vector according to claim 40, in combination with buffers for protein expression.

46. (new) A kit for the expression of a desired protein in a desired localization of a host cell, comprising a vector according to claim 40, and buffers for protein expression.

47. (new) A kit for the expression of a desired protein in a desired location of a host cell, comprising a cell line according to claim 44, and buffers for protein expression.

48. (new) A process for the detection, cloning and/or sequencing of polypeptides or parts thereof, which drive the subcellular localization of a protein
containing such polypeptide or part thereof, comprising
(a) constructing an expression library of random nucleic acid fragments ligated to a reporter gene and inserted in a vector molecule,
(b) transfecting a plurality of host cells with the library,
(c) screening for the subcellular localization of the expression product of the nucleic acid in the host cells via detection of a signal produced by the reporter gene,
(d) cloning such cells where the reporter gene signal is detected in a certain subcellular localization, and
(e) cloning and optionally sequencing the nucleic acid insert which encodes the polypeptide or part thereof.